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**STONE IN THE BLADDER—CHOICE OF
OPERATION.¹**

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As will be readily understood from the limited nature of the subject of this paper, dealing as it does with a small section of a large question, it will necessarily be short. So much has been written within the last few years upon stone in the bladder, and the best means of disposing of it, that little remains to be said. Yet is it within the province of the hospital-surgeon to modify somewhat, for himself at least, the rules for general guidance?

The surgeon most practically familiar with the subject of stone in the bladder occasionally meets this difficulty: Not what is the best operation to be performed in cases of stone in the bladder generally, but what is the safest and best operation to be performed in *this* particular instance? Every case has its own individuality, and there are cases to which the general principles or precepts enunciated by surgical writers can with difficulty be applied. The question of age commonly comes first, and

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quoad that element, the relative advantages of lithotrity and some form of lithotomy have been practically settled. In both directions the limits in point of age have been greatly extended by the lithotritist, and very *young children* and very *old men* are now with wisdom subjected to the crushing operation.

Contraction of the urethra, in any part of its course, is no longer an obstacle to, but a delay, merely, in the use of the lithotrite.

The condition of the bladder is now no longer taken so much into consideration as formerly. The rule once laid down, that unless the patient can retain his urine a certain period, say a couple of hours, he should not be subjected to lithotrity, no longer holds. My most satisfactory cases have sometimes been those in which the patient could not retain his urine five minutes, and in some instances the sufferer was obliged to wear a caoutchouc bag, into which the water trickled drop by drop—a condition of things which rarely continued after the first *séance* with the lithotrite.

Whatever the quality of the urine may be, there is no hindrance on that account to the crushing operation. The claim formerly put forward for the superiority of perineal lithotomy, and revived in recent years in favor of the suprapubic method in cases of renal complications, does not appear to me, in either instance, to be well founded. I venture to say, in general terms, that in diseased bladder; in diseased kidney; and in cases of unhealthy urine arising from either, the lithotrite is as safe an instrument as the lithotomist's knife. Nor should an

attempt at the removal of a calculus by either method be delayed pending an effort—usually fruitless—to improve any of those conditions.

The limits as to the size of the stone treated by lithotritry are becoming greater and greater as instruments are becoming more and more perfected.

The hardness of the stone does not now seem to be an inseparable obstacle to an attempt at its reduction. As “coming events cast their shadows before,” it is not impossible that at this meeting a Philadelphia surgeon may so instruct us to measure the force of resistance of the calculus, on the one hand, and the crushing power of the lithotrite on the other, as to establish the limits within which the crushing of a calculus may be carried with safety.

But while the sphere of lithotritry is steadily extending, and that of lithotomy is becoming more and more circumscribed, there are from time to time, and, in all probability, there always will be cases in which cutting must necessarily be resorted to; and then comes the question: Which of the many cutting operations should be selected? (I may here observe, parenthetically, that all cutting operations being equally practicable in any given case, the lateral method, to my mind, still possesses greater advantages and fewer disadvantages than any other. *Par préférence*, the lateral method—but the lateral method is not always practicable.) When an enlarged prostate or a tumor so interferes with the manipulation of the lithotrite as to make it impossible not only to seize the stone, but also to establish its size, it appears to me to be more

prudent to act as if the stone were of large calibre, too large, indeed, to be removed with ease or safety by the lateral operation, and to resort at once to the suprapubic method. Although, as elsewhere noted, I have removed by this method stones of much larger size than is deemed advisable by many to undertake by the lateral method, I am free to admit that in stones over a certain size, and in stones the size of which cannot be clearly made out, the supra-pubic method is the better operation.

Having said this much, I venture to express, in a few words, a few general principles or aphorisms, most of which have already been accepted by surgeons, and to offer an additional one for your acceptance. 1. Lithotrize—and by lithotritry I mean that more perfect method, which was foreshadowed by Mercier in France, and brought to its highest perfection in America—lithotrize in all cases of adults in which the stone is neither too large nor too hard for the lithotrite. 2. Lithotrize when the urethra is, or can be made, sufficiently capacious for the crushing instrument. 3. Lithotrize in children, however young, when the urethra permits the passage of a crushing instrument. In very young children the cutting operation is preferable. The precise age at which lithotritry is possible must vary with the caliber of the canal, which in young children varies greatly in its capaciousness and in its capacity. When the urethra in the child is not and cannot be made fit to receive the lithotrite, the cutting operation to be chosen should be the lateral method. 4. In the aged, when enlarged prostate not only prevents the stone being seized,

but its dimensions being ascertained, one should act as if the calculus were of large size and incapable of reduction, and should proceed to operate by the suprapubic method. I must confess that I have been forced to this conclusion by the consideration of two somewhat untoward cases of recent date, in which, prevented by an enlarged prostate from grasping the calculus, I adopted the lateral method, and found it impossible, in both cases, to complete the operation without reducing the volume of the stone before extraction—a procedure which it is always advisable to avoid, when possible. In both these cases the suprapubic method would have been better. The consideration of these cases has led me to reconsider certain rules I ventured, several years ago to lay down, to influence surgeons in the choice of operation, and it is the view then expressed I should wish, with your consent, to modify.

The question of surgical interference in cases of calculus in the female remains the same. The method employed years ago by Erichsen, Thompson, and others, has since been followed with advantage, and stones of large size are removable generally *per vias naturales*, after dilatation. In exceptionally large calculi the lithotrite commonly suffices; and rarely, indeed, is the surgeon obliged to resort to the knife in the case of females.

